

**To:** Nattis, Randy[Nattis.Randy@epa.gov]  
**From:** Bruce, Ian  
**Sent:** Wed 8/12/2015 2:58:19 PM  
**Subject:** RE: Gold King mine - update of USGS efforts in NM

Working on it now!

**Ian Bruce**

*IT Project Manager / GIS Developer*

Weston Solutions, Inc.

1340 Treat Blvd, Suite 210

Walnut Creek, CA 94597

(925) 948-2633 [office]

(509) 845-5547 [mobile]

[ian.bruce@westonsolutions.com](mailto:ian.bruce@westonsolutions.com)

**From:** Nattis, Randy [mailto:Nattis.Randy@epa.gov]  
**Sent:** Wednesday, August 12, 2015 6:07 AM  
**To:** Bruce, Ian <Ian.Bruce@WestonSolutions.com>  
**Cc:** Colomb, Jonathan <Jonathan.Colomb@WestonSolutions.com>  
**Subject:** Re: Gold King mine - update of USGS efforts in NM

I still need my public map you've been working on. We have to show the area and where we are working to the Navajo people.

Randy B. Nattis  
Federal On Scene Coordinator  
U.S. EPA Region IX  
[nattis.randy@epa.gov](mailto:nattis.randy@epa.gov)  
Phone - (415) 940-1108 - Cell

On Aug 12, 2015, at 6:51 AM, Bruce, Ian <[Ian.Bruce@WestonSolutions.com](mailto:Ian.Bruce@WestonSolutions.com)> wrote:

Alright, we'll monitor their progress.

I took a look at the Region 8 query last night and decided to spend this morning deciphering. I didn't make much progress last night.

We've been instructed to hold off on deliverables (maps, table) until we're all (Region 6, 8, 9) on the same page - I'm going to keep you guys updated on our progress here as well.

Heading to the office!

Ian Bruce

IT Project Manager / GIS Developer

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----- Reply message -----

From: "Nattis, Randy" <[Nattis.Randy@epa.gov](mailto:Nattis.Randy@epa.gov)>

To: "Colomb, Jonathan" <[Jonathan.Colomb@WestonSolutions.com](mailto:Jonathan.Colomb@WestonSolutions.com)>, "Bruce, Ian" <[Ian.Bruce@WestonSolutions.com](mailto:Ian.Bruce@WestonSolutions.com)>

Subject: Gold King mine - update of USGS efforts in NM

Date: Wed, Aug 12, 2015 05:36

I need you to start paying attention to this.

Randy B. Nattis  
Federal On Scene Coordinator  
U.S. EPA Region IX  
[nattis.randy@epa.gov](mailto:nattis.randy@epa.gov)  
Phone - (415) 940-1108 - Cell

Begin forwarded message:

**Resent-From:** <[Nattis.Randy@epa.gov](mailto:Nattis.Randy@epa.gov)>  
**From:** "[nnepawq@frontiernet.net](mailto:nnepawq@frontiernet.net)" <[nnepawq@frontiernet.net](mailto:nnepawq@frontiernet.net)>  
**Date:** August 12, 2015 at 6:25:28 AM MDT  
**To:** Randy Nattis <[nattis.randy@epa.gov](mailto:nattis.randy@epa.gov)>  
**Subject:** FW: Re: Gold King mine - update of USGS efforts in NM

FYI,

--Steve

Sent from Yahoo Mail for iPhone

---- Begin Forwarded Message ----

**From:** Matherne, Anne Marie  
**Date:** Aug 11, 2015, 4:49:23 PM  
**To:** Flanigan, Kevin G., OSE  
**CC:** Skibitski, Thomas, NMENV, Yurdin, Bruce, NMENV, Hogan, James, NMENV, [Byran.Dail@state.nm.us](mailto:Byran.Dail@state.nm.us), Johnson, Mike S., OSE, [david.nez@nndoh.org](mailto:david.nez@nndoh.org), [nnepawq@frontiernet.net](mailto:nnepawq@frontiernet.net), Matt Ely, Laura Bexfield, David Mau  
**Subject:** Re: Gold King mine - update of USGS efforts in NM

Kevin -

The lab has given us an official 14-day turnaround on the samples. That said, they are working to get the metals analyzed this week, with some of the majors possibly going into next week. We can keep you posted as we hear from the lab.

Anne-Marie

Anne-Marie Matherne, PhD  
Studies Chief, Environmental Sciences

U.S. Geological Survey  
New Mexico Water Sciences Center  
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Albuquerque NM 87109  
[matherne@usgs.gov](mailto:matherne@usgs.gov)  
Ph: 505-830-7971

On Tue, Aug 11, 2015 at 3:32 PM, Flanigan, Kevin G., OSE <[kevin.flanigan@state.nm.us](mailto:kevin.flanigan@state.nm.us)> wrote:

Thanks Anne Marie.

When do you expect the lab results for the Friday thru Sunday sampling events to be available?

Kevin

**From:** Matherne, Anne Marie [mailto:[matherne@usgs.gov](mailto:matherne@usgs.gov)]  
**Sent:** Tuesday, August 11, 2015 3:12 PM  
**To:** Skibitski, Thomas, NMENV; Yurdin, Bruce, NMENV; Hogan, James, NMENV; [Byran.Dail@state.nm.us](mailto:Byran.Dail@state.nm.us); Flanigan, Kevin G., OSE; Johnson, Mike S., OSE; [david.nez@nndoh.org](mailto:david.nez@nndoh.org); [nnepawq@frontiernet.net](mailto:nnepawq@frontiernet.net)  
**Cc:** Matt Ely; Laura Bexfield; David Mau  
**Subject:** Gold King mine - update of USGS efforts in NM

Hello -

We've had a number of inquiries concerning USGS sampling in New Mexico in conjunction with the Gold King mine spill, and we wanted to give you an update of our efforts.

A team of five from the New Mexico Water Science Center arrived at Farmington late on Friday, August 7. The goal was to collect water quality samples in the Animas and San Juan Rivers before and during passage of the spill plume. The team was on-site from Friday night until Sunday afternoon. Sample collection sites coincided with the location of USGS streamgages: Animas River at Farmington (09364500), before and during the plume; San Juan River at Farmington (09365000), during the plume; San Juan River at Shiprock (0936800), before and during the plume; San Juan River at Four Corners (09371010), both samples before the plume. The samples collected on the Animas and the San Juan at Farmington were composite samples; the samples at Shiprock and Four Corners were grab samples. A total of seven samples were collected

between Friday night and Sunday afternoon. Samples were filtered and will be tested for major ions, trace metals, and mercury at the USGS National Water Quality Lab. Field parameters (pH, specific conductivity, dissolved oxygen, and water temperature) were collected at the time of sampling. A continuous water-quality sonde was deployed on the Animas River at Farmington on Saturday morning and has continued to record field parameters (pH, SC, DO, and temperature) since that time.

Current efforts, as of Tuesday, August 11, will focus on the Animas at Farmington and San Juan at Farmington sites. A set of two ISCO samplers will be deployed at each site, one to sample daily, and a second, triggered by changes in turbidity, as an event sampler. A discharge measurement will be taken at each location, so that loads can be calculated from the suspended sediment samples.

On August 12, a second, five-parameter (pH, SC, DO, temperature, and turbidity) sonde will be deployed at San Juan at Farmington. Data from the Animas at Farmington sonde, which has been recording since Saturday morning, will be downloaded, and the sonde replaced with a five-parameter unit. A composite water-quality sample will be collected at each site, and bed sediment samples will be collected. An additional set of water quality and sediment samples may be collected at Aztec in conjunction with National Park Service monitoring there.

The USGS is currently in conversation with various agencies regarding additional monitoring needs, and may adapt our efforts in response to those conversations.

Please let us know if you have any questions.

Thank you, Anne-Marie

Anne-Marie Matherne, PhD  
Studies Chief, Environmental Sciences

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